

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference R8329WO	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FR2004/000756	International filing date (day/month/year) 25.03.2004	Priority date (day/month/year) 27.03.2003
International Patent Classification (IPC) or national classification and IPC		
Applicant OTV SA		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))</p> <p>_____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/000756

Box No. I

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-13 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-11 _____ received by this Authority on 07.01.2005 with the letter of 30.12.2004
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/3-3/3 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/FR2004/000756

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-11	YES
	Claims	none	NO
Inventive step (IS)	Claims	1-11	YES
	Claims	none	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims	none	NO

2. Citations and explanations (Rule 70.7)

1. In the present report, reference is made to the following documents:

D1: US 2002/113021;

D2: WO 02/072480;

D3: LOGE, F. J. ET AL: "ULTRAVIOLET DISINFECTION OF SECONDARY WASTEWATER EFFLUENTS: PREDICTION OF PERFORMANCE AND DESIGN" WATER ENVIRONMENT RESEARCH, WATER ENVIRONMENT FEDERATION, ALEXANDRIA, US, vol. 68, no. 5, 1 July 1996, pages 900-916.

2. The amendments submitted with the letter dated 30 December 2004 appear to comply with the provisions of PCT Article 34(2)(b).
3. Document D1, which is considered to be the prior art closest to the subject matter of claims 1 and 11, discloses a device for disinfecting water by means of ultraviolet radiation, which device is intended to be installed in an open channel in a water disinfection facility (see figures 1 and 3, reference sign 105) in which the water to be

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

disinfected flows in a direction D. Said device includes a plurality of longitudinal UV lamp means (130) each consisting of a UV lamp, a protective sleeve made of a UV-transparent material and connectors positioned essentially longitudinally in said direction D, which lamp means (130) are divided into a plurality of vertical modules each consisting of a beam (135) having at least two vertical supporting means (125) attached thereto, which vertical supporting means (125) house at least one series of said lamp means arranged one above the other under said beam (135) (see figures 1 and 3 and page 3, [0042]-[0047]).

It follows that the subject matter of claims 1 and 11 differs from this known device in that the supporting means are mounted in n separate planes (N, N', N'', etc.) essentially perpendicular to said direction D, and in that the number n is greater than 1.

The subject matter of claims 1 and 11 is, therefore, novel (PCT Article 33(2)).

The problem that the present invention is intended to solve can therefore be considered to be that of providing an improved alternative construction for the known device.

The solution to this problem, as proposed in claims 1 and 11 of the present application, is considered to involve an inventive step (PCT

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Article 33(3)), for the following reasons:

- (i) D1 does not suggest a staggered arrangement for mounting the UV lamp rack modules, all of the modules therein are aligned in a parallel manner with the downstream and upstream ends in a single plane (see figures 1-12).
- (ii) Unlike with the solution as per claims 1 and 11 of the present application, the prior art proposes spacing the modules apart in a direction perpendicular to the direction of fluid flow in order to reduce head loss (see D3, figure 12, table 6). In this context, document D2 proposes the installation of baffles for generating turbulent flow so as to ensure the effectiveness of disinfection (D2, figure 1, reference sign 30; page 12, lines 8-12). It follows that these documents would lead a person skilled in the art to a solution opposed to the one disclosed in the present application.

4. Claims 2-10 are dependent on claim 1 and, as such, therefore also fulfil the PCT requirements of novelty and inventive step.